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## Junk DNA? (Faith & Science Update)

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John T. Baldwin

In the remarkable passage regarding the unity of the church (1 Cor. 12:12-27) that clearly alludes to the care and intent of an intelligent designer, the apostle Paul begins by underscoring the fact that “God has set the members, each one of them, in the body just as He pleased” (vs. 18, NKJV). This is profoundly divine intelligent design.

Within this context, several insights may be drawn about the loving care and attention exhibited by our Designer that illustrate the harmonious beauty that God intended His people to have in their relationships with one another and with Christ. Although much attention could be devoted to grasping the full meaning of this passage, we will focus on what it may mean to God-fearing scientists as they examine the complexity of the human body. Modern science has added a new depth of meaning to the harmonious and complementary beauty that our bodies, and its parts, contain.

One illustration of this may be found within the DNA codes that

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make up much of the “programming” of our body. Ever since Francis Crick and James Watson, among others, first unraveled the basic double helix structure of DNA molecules in 1953, scientists have worked hard to discover and explain—or “decode”—which parts of our DNA represent the codes for which genes, acting as switches, as it were, for all the various traits and characteristics of our bodies, such as the color of our eyes and hair.

Molecular biologists soon noticed that approximately 95 to 98 percent of DNA in the nucleus of human cells seemingly did not code for genes and dismissed these portions as “junk DNA,” the leftovers of evolutionary development. In other words, these sections of DNA sequences were designated as junk DNA because science could not ascribe any function to them. Researchers assumed that they were just molecular garbage, and the sequence of the “syllables,” i.e., the nucleotides in these DNA, should be completely random.

Recently, however, this junk DNA

has received new attention.<sup>2</sup> According to research released through *Johns Hopkins Medicine News & Information Services*, and several other places as well, these junk DNA sequences formerly thought of as useless may in fact be critical control regions that do indeed assist in switching genes on and off.<sup>3</sup> They have discovered that the majority of DNA in the human genome is transcribed into functional molecules, called RNA, and that these transcripts extensively overlap one another.

This broad pattern of transcription challenges the long-standing view that the human genome consists of a relatively small set of discrete genes, along with a vast amount of so-called junk DNA that is not biologically active. Also, much to the surprise of evolutionary biologists, researchers have discovered that control regions that perform the same function don't necessarily have to look the same among different species, as noted for zebra fish and humans. This indicates that our non-coding regions are in fact filled with important enhancers and suppressors that we are only beginning to understand.

These discoveries have left evolutionists baffled, as they indicate that, if true, a simple story of descent through natural phenomena would need to be much more complex than scientists realized.

“Our perspective of transcription and genes may have to evolve,” researchers note in an article published by *Nature*, as their new network model of the genome “poses some interesting mechanistic questions” that have yet to be answered.<sup>4</sup>

Adds Francis Collins, the director of the National Human Genome Research Institute in Bethesda, Maryland, “I don't think it should be surprising that what we have discovered is complex.” Referring to humans, he observed, “We are intended to be complicated and we obviously are.”<sup>5</sup> Or, perhaps, this complexity is one more indication of the presence of an intelligent and loving Designer, God, who so composed us, even our inward parts, to work together mysteriously and harmoniously, thereby giving more abundant honor to God, the Designer of the mistakenly called junk DNA of our bodies.

“God has set the members, each one of them, in the body just as He pleased” (1 Cor. 12:18, NKJV). With the above discussion in mind, it becomes clear that our bodies are not the development of random chance, with junk portions that are the leftovers of evolution.

Rather, God has carefully designed each part, including the eye and the hand (as Paul implies in verse 16), and also the DNA sequences of our bodies to reflect the mark of intelligence and intention-

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ality. God made us they way He desired!

As 1 Corinthians 12:22 continues, “It is much truer that the members of the body which seem to be weaker are necessary” (NASB). This applies well to our analogy with “junk DNA.” Those parts of our body that biologists were ready to dismiss as useless, God intentionally created to be quite useful! True were the words of the Psalmist, “I will give thanks to You, for I am fearfully and wonderfully made; Wonderful are Your works” (139:14, NASB). Indeed, concerning all the parts of body including the DNA, we can join David in saying to our caring Designer, “In wisdom You have made them all” (104:24, NASB).

## REFERENCES

<sup>1</sup> Thanks to Michael F. Younker for his invaluable assistance in the writing of this column.

<sup>2</sup> See [http://www.hopkinsmedicine.org/press\\_releases/2006/03\\_23\\_06.html](http://www.hopkinsmedicine.org/press_releases/2006/03_23_06.html) and G. Bejerano, et al. “Ultraconserved Elements in the Human Genome,” *Science*, vol. 304, pp. 1321-1325. Discussed in “Junk’ DNA Reveals Vital Role,” *Nature* (2004). See also Simons and Pellionisz (2006), *Genomics, Morphogenesis and Biophysics: Triangulation of Purkinje Cell Development*.

<sup>3</sup> “Junk DNA May Not Be So Junky After All,” *Johns Hopkins Medicine News & Information Services* (published online March 23, 2006). See also [http://www.sciencentral.com/articles/view.php3?type=article&article\\_id=218392305](http://www.sciencentral.com/articles/view.php3?type=article&article_id=218392305); <http://news.bbc.co.uk/2/hi/science/nature/3703935.stm>; <http://www.abc.net.au/science/k2/moments/s133634.htm>.

<sup>4</sup> See <http://www.genome.gov/25521554>.

<sup>5</sup> See [http://www.junkdna.com/#junk\\_dna\\_is\\_dead](http://www.junkdna.com/#junk_dna_is_dead).

